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Regional Educational Laboratory
at American Institutes for Research

Making Connections: The State Role in Early Warning Systems

Dropout Prevention Research Alliance

March 24, 2015

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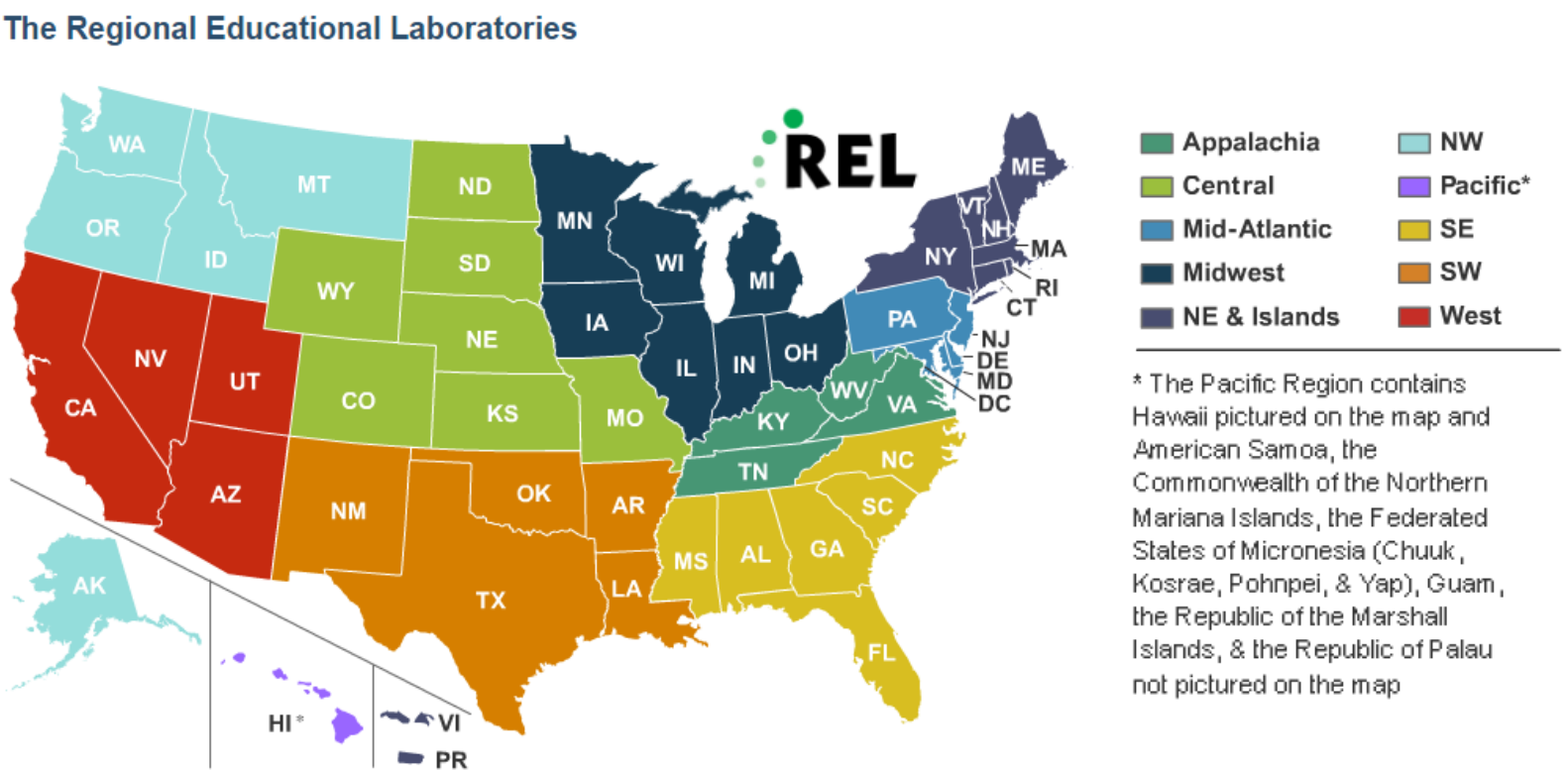
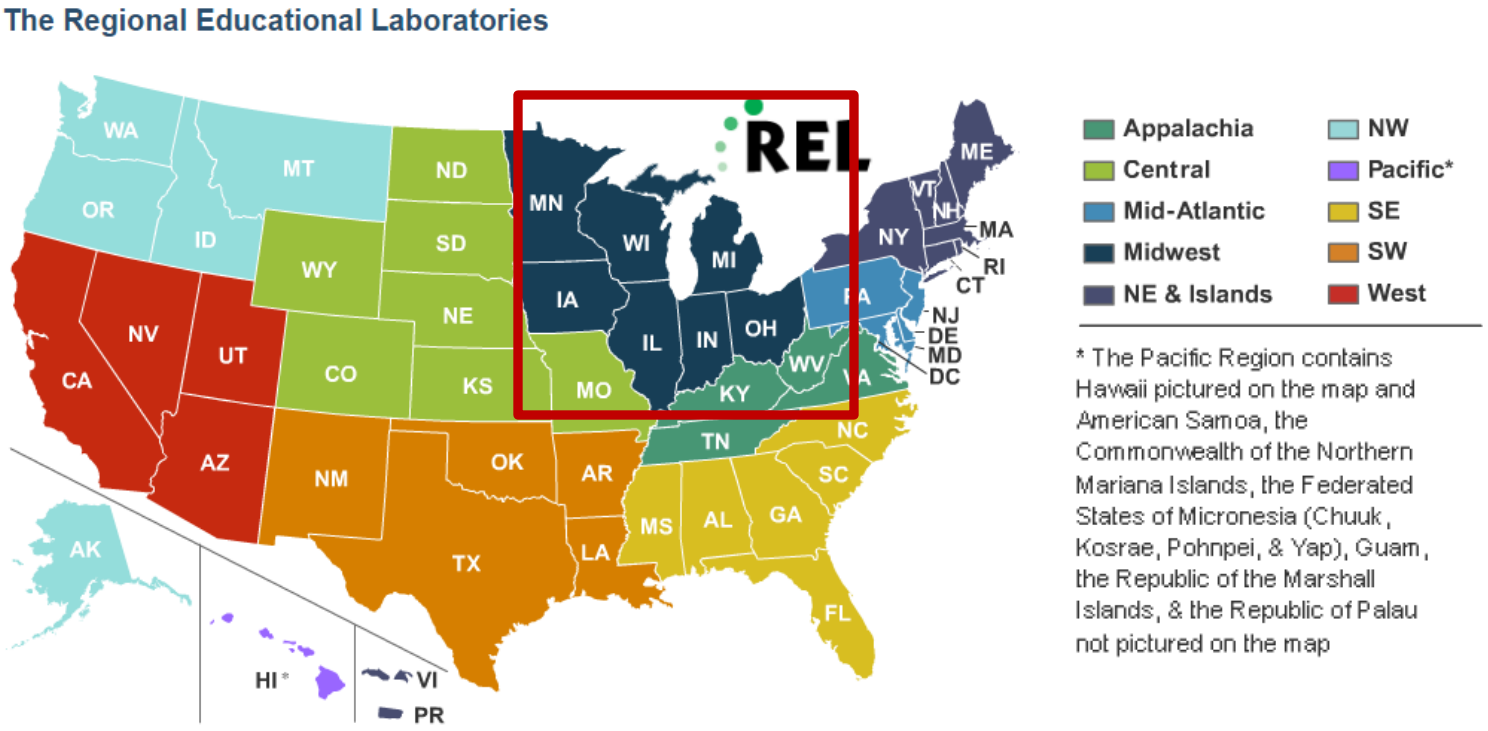


American Institutes for Research (AIR), through its merger with Learning Point Associates, has operated the Midwest's regional educational laboratory for more than 25 years.

REL Midwest



REL Midwest provides education research and technical support services to educators and policymakers in **Illinois, Indiana, Iowa, Michigan, Minnesota, Ohio,** and **Wisconsin**.

REL Midwest

Our charge is to **improve academic outcomes** for students by:

- Helping states, school districts, and schools systematically use data and research
- Conducting and supporting high-quality research and evaluation
- Promoting evidence-based decision making

Research Alliances

- REL Midwest conducts its work primarily through **Research Alliances**
- Research alliances comprise practitioners, policymakers, and other education stakeholders
- Researchers and alliance members work together to develop and carry out a research agenda that addresses a shared problem of practice

Research Alliances

- College and Career Success Research Alliance
- **Dropout Prevention Research Alliance**
- Early Childhood Education Research Alliance
- Educator Effectiveness Research Alliance
- Rural Research Alliance
- School Turnaround Research Alliance
- Urban Research Alliance
- Virtual Education Research Alliance

Resources on our Website

www.relmidwest.org

- Links to resources and publications
- Research alliances and members
- Information about upcoming events
- Access to archived events
- Follow us on Twitter @RELMidwest

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Type your message or question in the narrow rectangular box on the bottom of the Chat pod.

Click the dialogue bubble to the right of your message or hit your **return** key to post your message.

Webinar Features

Hearing From You: Differentiating the Chat Pods

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Question (Q&A) Chat pod – Post your questions for the presenter

Comments and Insights pod – Share your stories and insights

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Event Orientation & Speaker Introductions

Mindee O'Cummings, Ph.D.

Principal Researcher, REL Midwest

Anticipated Goals

- Increase awareness of EWS development and implementation across the U.S., and specifically in the REL Midwest region
- Provide relevant and practical guidance for states to effectively support the use of EWS in schools and districts
- Engage education stakeholders in a conversation about the challenges, successes, and importance of state involvement with EWS development and implementation

Agenda

Time	Activity	Presenter(s)
1:10–1:30 p.m.	The Current Landscape of Early Warning Systems	Susan Therriault, Ed.D. *American Institutes for Research*
1:30–1:45 p.m.	State Perspective: Wisconsin	Jared Knowles *Wisconsin Department of Public Instruction*
1:45–2:00 p.m.	State Perspective: Minnesota	John Gimpl *Minnesota Department of Education (MDE)*
2:00–2:10 p.m.	Practical Lessons from Implementation: A School Perspective	Timothy Conboy, Ed.D. *Rosemount High School (Minnesota)*
2:10–2:25 p.m.	Q&A with Panelists	Moderated by Mindee O'Cummings, Ph.D. *REL Midwest*
2:25–2:30 p.m.	Wrap-Up & Closing	Mindee O'Cummings, Ph.D. *REL Midwest*

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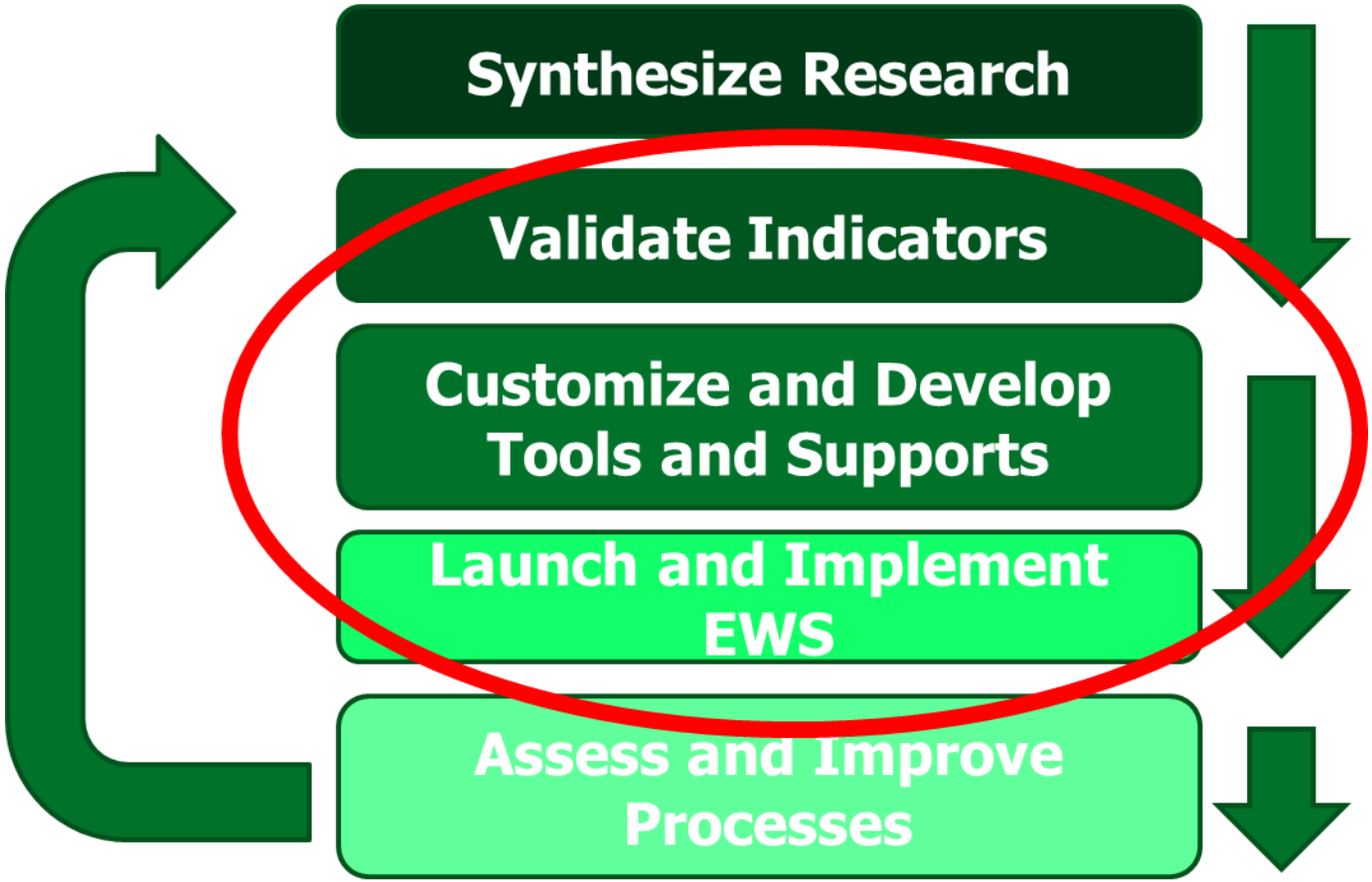
The Current Landscape of Early Warning Systems

Susan Therriault, Ed.D.

Principal Researcher, REL Midwest

EWS Implementation Pathway



State EWS Implementation Challenges

- Local control
- State and LEA capacity to use data and support the use of data in schools
- Availability and allocation of resources (funding, time, and people)
- Dropout prevention is not a state or district priority

Benefits of Validating Indicators

- Based on available data that is applicable to the state context (e.g., state assessments or other data collected)
- Increases legitimacy of the indicators if validated in your state's schools
- State-determined priority outcomes (e.g., reading by the end of third grade, high school graduation)

Challenges for Validating Indicators

- Validation is time and resource intensive (and ongoing)
- There are limitations in the data elements collected
- Timing of data availability is critical
- A system is needed to share early warning indicator data with districts and schools

Launch and Implementation

Technical assistance/support

- Many states provide links to state or nationally developed EWS tool and implementation guidance
- Support provided in the form of data analysis (validating indicators)
- Local districts and schools can decide to participate

Launch and Implementation

Programmatic mandates

- Grants or programs require reporting or monitoring aligned with EWS indicators
- Texas: Ninth Grade Transition Grantees use the EWS High School Tool to monitor students

Launch and Implementation

Legislative mandates

- Virginia: Accreditation linked to high school graduation rates

Implementation Strategies

Voluntary participation (e.g., Wisconsin, Minnesota, Massachusetts)

- Tools and validated indicators
- Implementation guidance
- Professional development

Implementation Strategies

Pilot EWS in schools and districts (e.g., Virginia, California)

- Coalition of the willing
- Active members and feedback
- Continuous support

Implementation Strategies

Integrate indicators between state, district, school data systems (e.g., Massachusetts and Louisiana)

State Implementation Incentives

- Improving graduation rates is a priority
- Entry costs are low in terms of risk and resources
- Reporting is simplified by using EWS Tool
- Monitoring of school improvement is linked to the indicators at the school or district level

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A State Perspective: Wisconsin

Jared Knowles

Research Analyst

Wisconsin Department of Public Instruction

Wisconsin

- Dropout Early Warning System (DEWS)
  - Provides on-time graduation predictions for all students in grades 6, 7, 8, and 9 statewide (225,000 students in approximately 1,000 schools)
  - Secure reports available to school and district staff online, updated twice annually in August and April
  - 2nd full year of implementation

DEWS in Action

Orientation video:

http://www.youtube.com/watch?v=4C2F8zhHV8w&hd=1

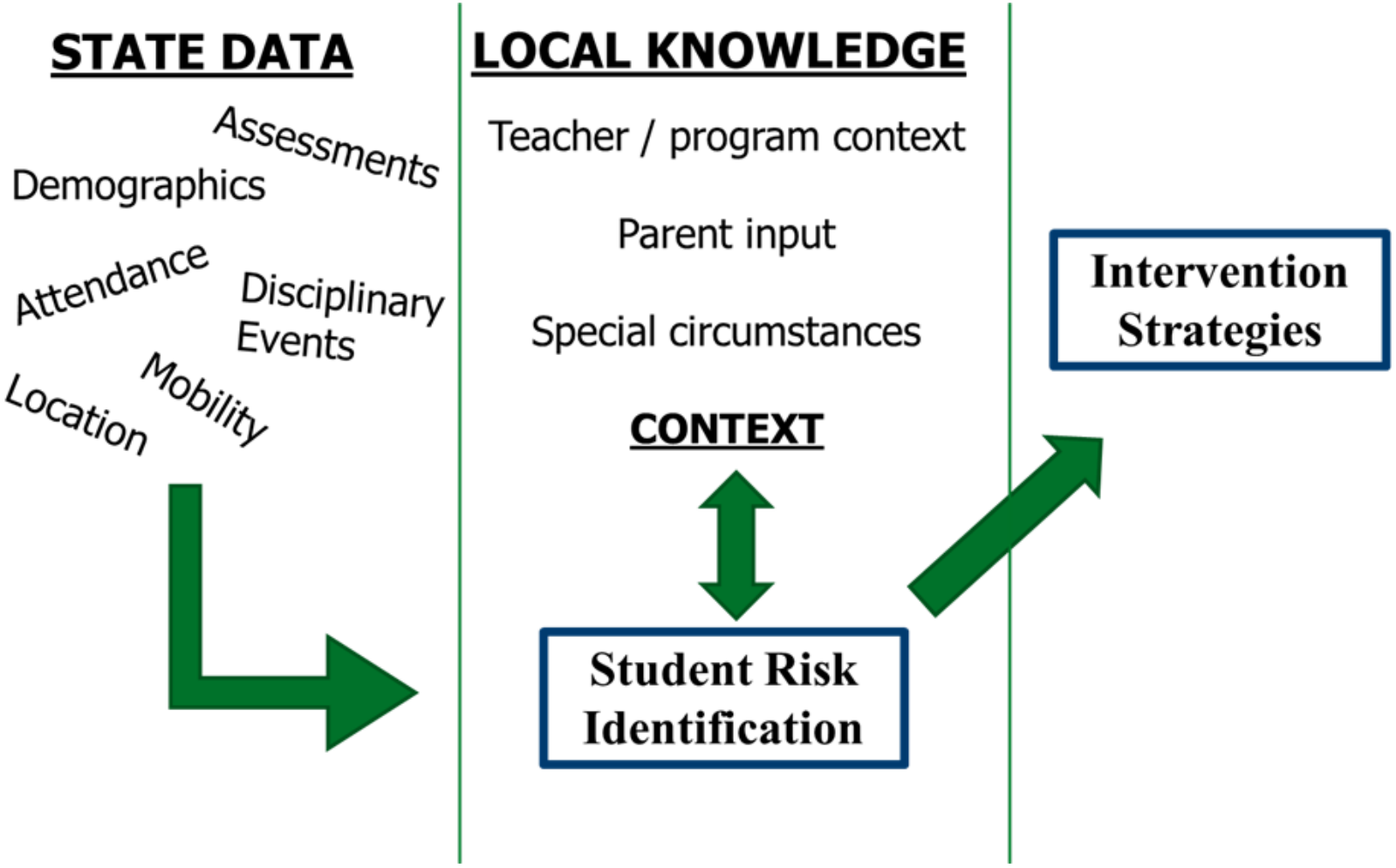
DEWS support page:

www.dpi.wi.gov/dews

Wisconsin – Why DEWS?

- DEWS was identified as a strategy to meet Wisconsin's goal of reducing graduation gaps
  - Goal is to reduce graduation gaps for race/ethnicity and FRL status by 50% by 2017
  - DEWS linked to data literacy professional development

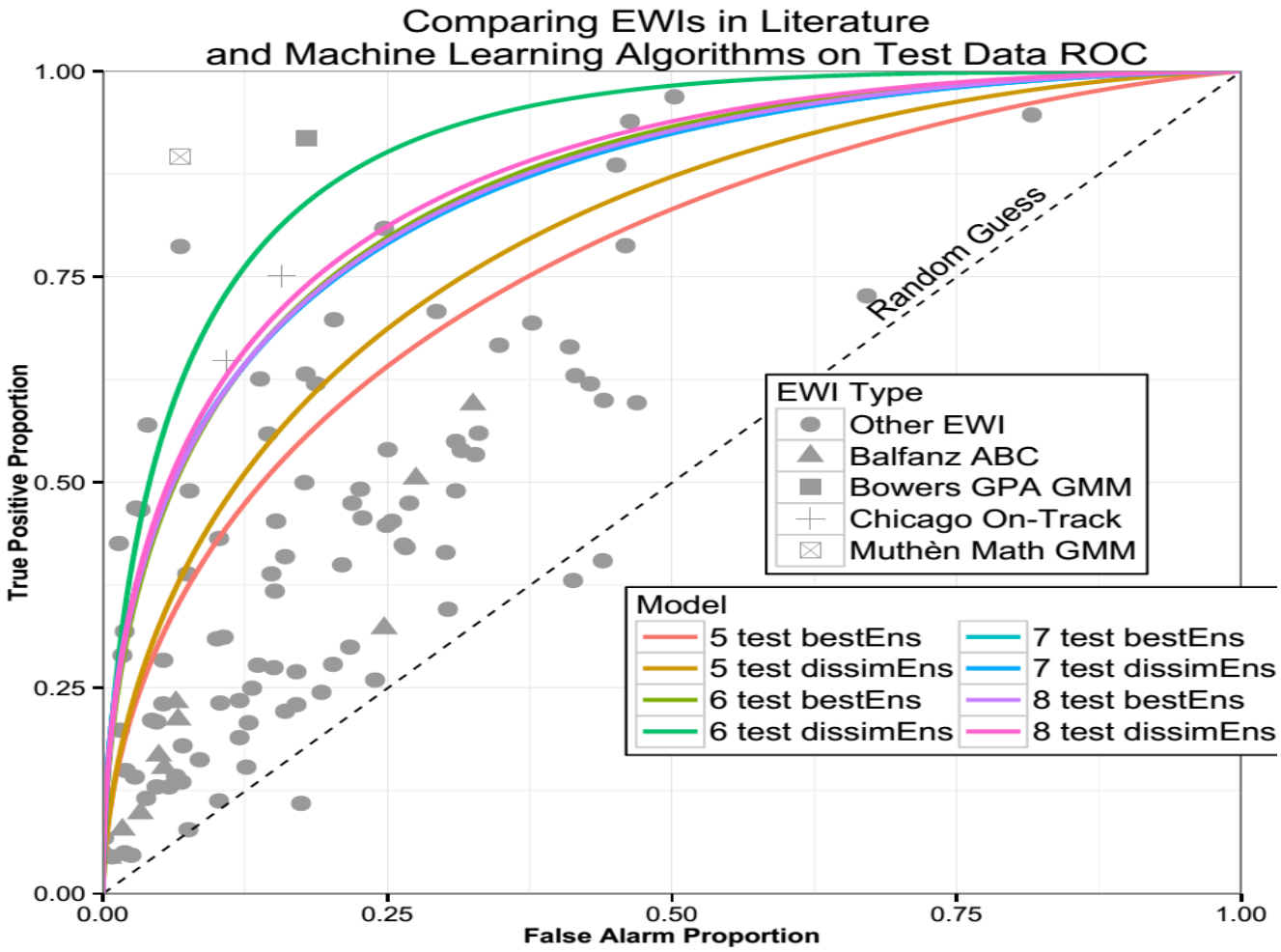
Wisconsin – DEWS Theory



Wisconsin – What makes DEWS different?

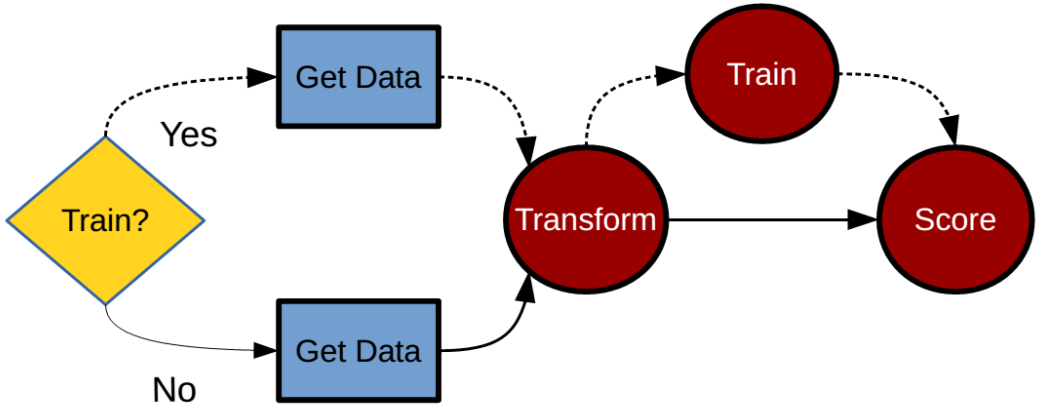
- DEWS does not use a checklist system, but instead gives students risk scores from 0-100
- DEWS is early – available at start of grades 6-9
- DEWS includes a margin of error
- DEWS provides subscores focusing on *malleable factors* that influence student risk

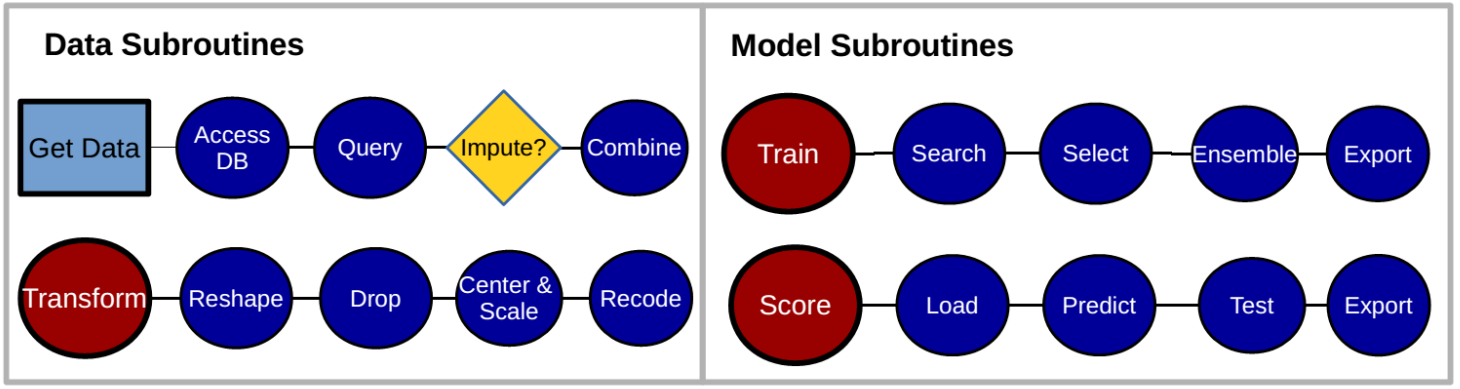
Wisconsin – DEWS Accuracy



Wisconsin – DEWS IT Workflow

DEWS Workflow for Training and Scoring





Wisconsin - Rollout

- DEWS was developed during the 2012-13 school year
- Pilot group of 34 schools identified in early 2013
- Pilot materials delivered electronically in mid-April 2013; participation in follow-up survey too
  - Interpretative guide
  - Student reports for all current 7th graders
  - School report and school roster
- Pilot materials mimic dashboard, September 2013 rollout to statewide dashboard

Wisconsin – How to Use DEWS?

- Resources
  - Training materials available on the Wisconsin Department of Public Instruction (DPI) website include DPI produced materials and links to other high quality resources
  - Website: www.dpi.wi.gov/dews
  - Goal is to provide resources that reduce burden on local implementers in using and explaining DEWS
  - Transparency through technical documents describing DEWS, data used, and methodology

Wisconsin – How to Use DEWS?

- Professional development
  - DPI employees present on DEWS to various statewide networks such as RSN, Title I, School Counselors, ets.
  - State provides DEWS training alongside ongoing dashboard and data literacy training project known as WISEexplore http://wise.dpi.wi.gov/wisexplore
  - Trainings are available to districts at their request and are provided by staff at regional service areas

DEWS Usage

- **Depth**
  - Districts are deepening their engagement with WISEdash
- **Breadth**
  - Almost all districts have visited DEWS reports at least once in each year, 2013 and 2014
- **Growth**
  - DPI and regional service agencies have increased the usage of DEWS and WISEdash by districts over time
- **Metrics**
  - WISEdash and DEWS usage is looked at to make sure the tool provides value where it is needed, **with local staff**

DEWS Screenshot – Student Profile

Student Profile

Student ID:

Name	Student ID	District	School	Grad Cohort	Grade Level	Status
			Middle		7	Active

General Information

Demographics

Student Age	12
Birthdate	Oct-20-2000
Gender	Male
Language	Not Reported
Race / Ethnicity:	
Hispanic	No
Asian	No
Black	No
American Indian or Alaskan	
Islander	No
White	Yes

Other Indicators

Status Description	Active
Disability Status	No
Ed Environment	Not Special Ed
Primary Disability	Not IDEA Eligible or No Disability
English Language Learner Status	No
ELL Served Status	Not Applicable
English Language Proficiency Level	7 - Never ELL
Graduation Status	Not Completed
Diploma Type	Not Applicable
School Changes	0
Migrant Status	No

Early Warning Outcomes

DEWS Outcome (Score)	High (67.8)
DEWS Mobility	Low
DEWS Discipline	Low
DEWS Attendance	High
DEWS Assessments	High
DEWS Outcome Date	08-21-2013

Economic Indicators

Econo c Disadv Status	
Econon c Disadv Description	

Attendance Rate Summary

School Year	Attendance Rate
2011-12	87.0%
2010-11	92.2%
2009-10	93.1%
2008-09	91.7%
2007-08	95.0%

WSAS Proficiency Level Summary

Test Type	Subject	Grade Level 3 (2009-10)	Grade Level 4 (2010-11)	Grade Level 5 (2011-12)	Grade Level 6 (2012-13)
WKCE	Mathematics	2	2	1	1
	Reading	1	1	1	1
	Language Arts		2		

All data is fictitious and for demonstration purposes only.

DEWS Screenshot – Student Detail

Early Warning Outcomes	
DEWS Outcome (Score)	Moderate (76.1)
DEWS Mobility	Moderate
DEWS Discipline	Low
DEWS Attendance	Low
DEWS Assessments	Low
DEWS Outcome Date	08-21-2013

Early Warning Outcomes	
DEWS Outcome (Score)	High (46.3)
DEWS Mobility	Low
DEWS Discipline	Moderate
DEWS Attendance	High
DEWS Assessments	High
DEWS Outcome Date	08-21-2013

Early Warning Outcomes	
DEWS Outcome (Score)	High (69.4)
DEWS Mobility	Low
DEWS Discipline	Low
DEWS Attendance	Low
DEWS Assessments	High
DEWS Outcome Date	08-21-2013

Early Warning Outcomes	
DEWS Outcome (Score)	Moderate (82.5)
DEWS Mobility	Low
DEWS Discipline	Low
DEWS Attendance	Moderate
DEWS Assessments	Moderate
DEWS Outcome Date	08-21-2013

All data is fictitious and for demonstration purposes only.

DEWS Screenshot – Student Roster

All data is fictitious and for demonstration purposes only.

Enrollment by Grade Level (Current) Details

District: Please Select a District; 21st Century Preparatory School; Abbotsford

School Type: [All Types]; Elementary School; High School; Middle School

School: [All Schools]

Grade Level: [All Grades]; K4; PK; KG

Race/Ethnicity: [All]; Amer Indian; Asian; Black

Gender: [All] | Disability Status: [All] | ELL Status: [All] | Econ Disadv Status: [All] | Enrollment Point: Any Enrollment

Grade Level: 7

Total of 111 row(s) with 10000 Row Limit

Name	Student ID	Gender	Race/ Ethnicity	School	Current Indicator	DEWS Outcome	DEWS Score	DEWS ± Margin of Error	Grade Level
		Female	White		Active				7
		Female	White		Active				7
		Male	White		Active				7
		Male	Amer Indian		Active				7
		Male	White		Active				7
		Male	White		Active				7
		Female	Two or More		Active				7
		Female	White		Active				7
		Male	White		Active	High	54.2	9.4	7
		Male	White		Active	High	64.1	8.9	7
		Male	White		Active	High	64.8	9.1	7
		Male	White		Active	High	66.8	8.6	7
		Female	White		Active	High	67.5	8.8	7
		Male	White		Active	High	67.8	8.4	7
		Female	Hispanic		Active	Moderate	71.4	8.2	7
		Male	White		Active	Moderate	71.9	7.9	7
		Male	White		Active	Moderate	73.4	8.0	7
		Male	White		Active	Moderate	75.8	7.4	7
		Male	White		Active	Moderate	77.3	7.1	7
		Male	Hispanic		Active	Moderate	77.4	7.2	7
		Male	White		Active	Moderate	77.6	7.0	7
		Male	White		Active	Moderate	77.8	7.0	7
		Male	White		Active	Moderate	78.2	6.9	7
		Female	White		Active	Moderate	81.1	6.6	7
		Male	White		Active	Moderate	81.6	6.2	7

DEWS Screenshot – Attendance

Student Profile | Enrollments | Attendance | ACCESS | WSAS | ACT | AP | SGP | HS Completion | Postsecondary

About the Data: Student Data

Attendance

Student ID:

Student ID	District	School	Grad Cohort	Grade Level	Status
				Not Reported	Active

Attendance

School Year	School District	School Name	Attended	Scheduled	Attendance Rate
2010-11			175.5	180.0	97.5%
2009-10			176.0	180.0	97.8%
2008-09			175.0	180.0	97.2%
2007-08			174.0	180.0	96.7%
2006-07			175.0	180.0	97.2%
2005-06			147.0	180.0	81.7%

Absence

School Year	School District	School Name	Absent	Scheduled	Absence Rate
2010-11			4.5	180.0	2.5%
2009-10			4.0	180.0	2.2%
2008-09			5.0	180.0	2.8%
2007-08			6.0	180.0	3.3%
2006-07			5.0	180.0	2.8%
2005-06			33.0	180.0	18.3%

All data is fictitious and for demonstration purposes only.

DEWS Screenshot – Enrollment

Student Profile | Enrollments | Attendance | ACCESS | WSAS | ACT | AP | SGP | HS Completion | Postsecondary

About the Data: Student Data

Enrollments

Student ID: [redacted]

Name	Student ID	District	School	Grad Cohort	Grade Level	Status
[redacted]					Not Reported	Active

Enrollments

School Year	Begin	End	School District	School Name	Admission Reason	Withdraw Reason
2012-13	09-04-2012	06-30-2013	[redacted]	[redacted]	New Enrollment	Continuing Enrollment
2010-11	07-01-2010	06-10-2011			Continuing/Re-Enrollment	Transfer to a School Not Covered by WSLS. Known to be Continuing.
2009-10	09-01-2009	06-30-2010			Intra-District	Transfer to Another WI School Covered by WSLS. Known to be Continuing.
2008-09	07-01-2008	06-12-2009			Continuing/Re-Enrollment	Transfer to Another WI School Covered by WSLS. Known to be Continuing.
2007-08	07-01-2007	06-30-2008			Continuing/Re-Enrollment	Transfer to Another WI School Covered by WSLS. Known to be Continuing.
2006-07	07-01-2006	06-30-2007			Continuing/Re-Enrollment	Continuing Enrollment
2005-06	09-01-2005	06-30-2006			Intra-District	Continuing Enrollment
2005-06	07-01-2005	08-31-2005			New Enrollment	Transfer to Another WI School Covered by WSLS. Known to be Continuing.

All data is fictitious and for demonstration purposes only.

Wisconsin

- Lessons learned?
  - Be transparent about your predictive accuracy – validated measures are more likely to be used
  - Build a diverse internal workgroup of different teams with a need for EWS (Title I, Wellness, IDEA, etc.)
  - Find school, district, or regional leaders – champion user bases and potential trainers who are excited about the idea
  - Communicate
  - Do a pilot and get feedback
  - Use feedback

Wisconsin - Resources

- Learn more about Wisconsin DEWS
  - Pre-print of research paper on DEWS methodology, to be published in the Journal of Education Data Mining, available now at http://goo.gl/XEj8U2
  - DEWS homepage has many EWS resources and DEWS specific guides (www.dpi.wi.gov/dews)

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A State Perspective: Minnesota

John Gimpl

State Implementation Specialist
Minnesota Department of Education

Minnesota Early Indicator and Response System (MEIRS)

A tool for use by interested schools – voluntary.

Two Components:

1. An early warning data system to screen for students in grades 6 and grade 9 who are at risk of not completing high school in four years.

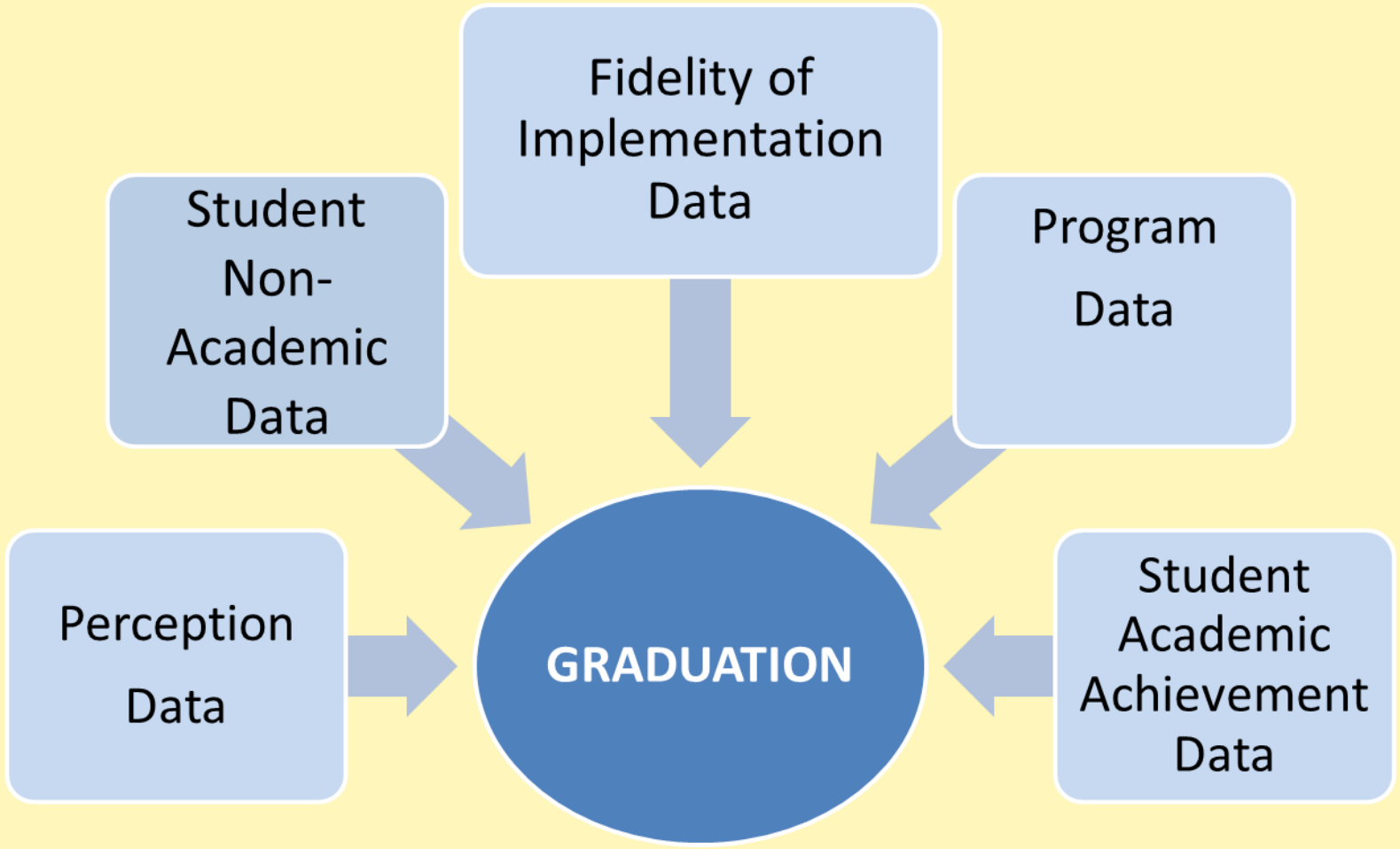
2. A corresponding process to a) review data for students at risk of not completing high school in four years, b) select, c) provide and d) monitor supports to help get students back on track to graduation.

Minnesota Department of Education

Objective of MEIRS

Raise rates of graduation AND engage children in school giving them the knowledge and skills necessary to successfully meet the challenges life brings after completing high school.

Categories of data that influence graduation rates



Definitions of MEIRS Variables

- State level research confirmed that these variables distinguish between students who drop out and those who complete high school in four years:
  - Attendance
  - Mathematics Accountability Test performance
  - Reading Accountability Test performance
  - Suspension and Expulsion
  - Multiple Enrollments

Definitions of MEIRS Variables

- Groups identified as being at greater risk typically requiring or receiving additional support services:
  - Limited English Proficient
  - Special Education
  - Migrant
  - Homeless
  - Free and Reduced Price Lunch

Professional Development

- Schools must designate one staff person to receive an initial MEIRS training.
- MDE designed and delivers MEIRS trainings in collaboration with the Regional Centers of Excellence.
- Upon completion of MEIRS training, schools are granted access to the system by district superintendents.

Overview: MEIRS Secure Report

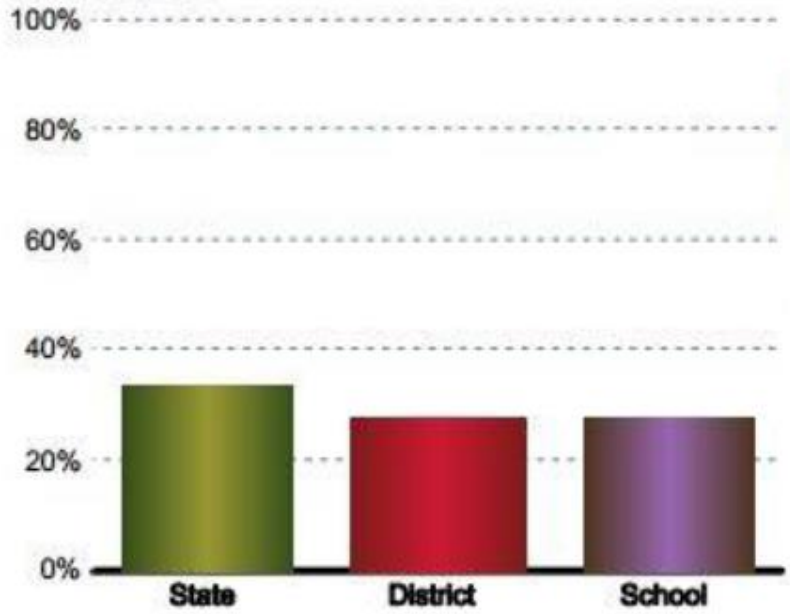
- Secure report with aggregated data and list of students with risk factors
- Requires a team problem solving process to analyze data, determine root cause and match potential supports and interventions at universal, targeted or intensive level
- State report provides a snapshot in time (based on October 1 Child Count Data) – goal is to promote tracking of risk factors in “real time”

Overview: MEIRS Secure Report

Minnesota Early Indicator and Response System (MEIRS)

What Percentage of Students Are Predicted At Risk Of Not Graduating From High School In Four Years?

6th Grade in 2015



	At Risk	Identified	Percent
STATE	20,369	61,583	33.1%
MOCK-UP PUBLIC SCHOOL DISTRICT	38	137	27.7%
MOCK-UP MIDDLE SCHOOL	38	137	27.7%

Note:

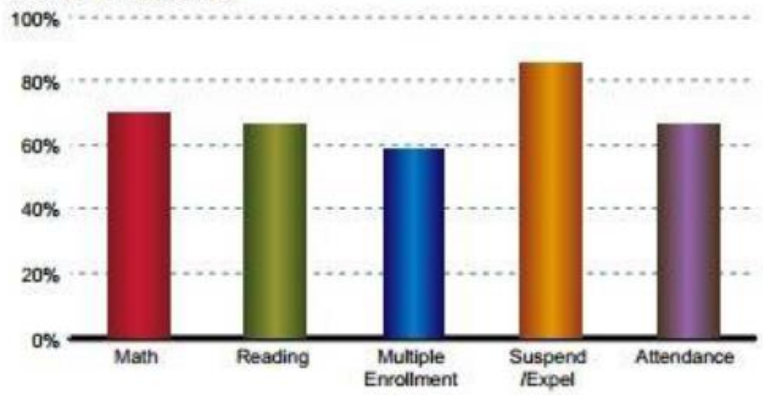
The MOCK-UP MIDDLE SCHOOL 6th Grade Cohort Anticipating High School Graduation in 2021 included a total of 139 students.

- Analysis was completed for 137
- 38 were identified at risk of not graduating on time.

Overview: MEIRS Secure Report

What Risk Factor(s) Are Most Prevalent?

MOCK UP MIDDLE SCHOOL



	At Risk	Identified	Percent
Math	21	30	70.0%
Reading	22	33	66.7%
Multiple Enrollment	10	17	58.8%
Suspension/Expulsion	6	7	85.7%
Attendance	2	3	66.7%

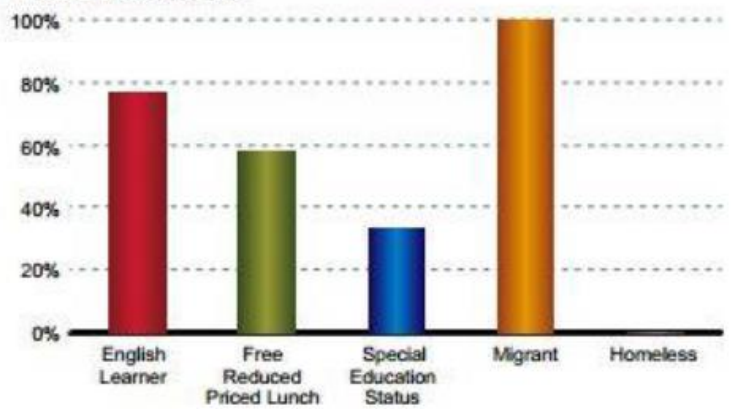
Note:

Students who have one or more of these risk factors are at increased risk of not graduating in four years.

- Math: The student received a "D" achievement level (does not meet standards) on at least one mathematics state accountability test in 3rd-5th grades
- Reading: The student received a "D" achievement level (does not meet standards) on at least one reading state accountability test in 3rd-5th grades
- Multiple Enrollment: The student attended more than 1 school in the same fiscal year in 3rd-5th grades, excluding dual enrollment and summer school.
- Suspension or Expulsion: The student was suspended (in school or out), expelled, or excluded at least once in 3rd-5th grades
- Attendance: The student had less than an average of 85% attendance in 3rd-5th grades

How Prevalent is Risk Within These Groups?

MOCK UP MIDDLE SCHOOL



	At Risk	Identified	Percent
English Learner	19	25	76.0%
Free Reduced Priced Lunch	38	66	57.6%
Special Education Status	7	21	33.3%
Migrant	1	1	100.0%
Homeless	0	0	0.0%

Note:

Research suggests that students in these groups, on average, are at increased risk of not completing high school in four years.

The homeless indicator is not used in analysis for 6th grade.

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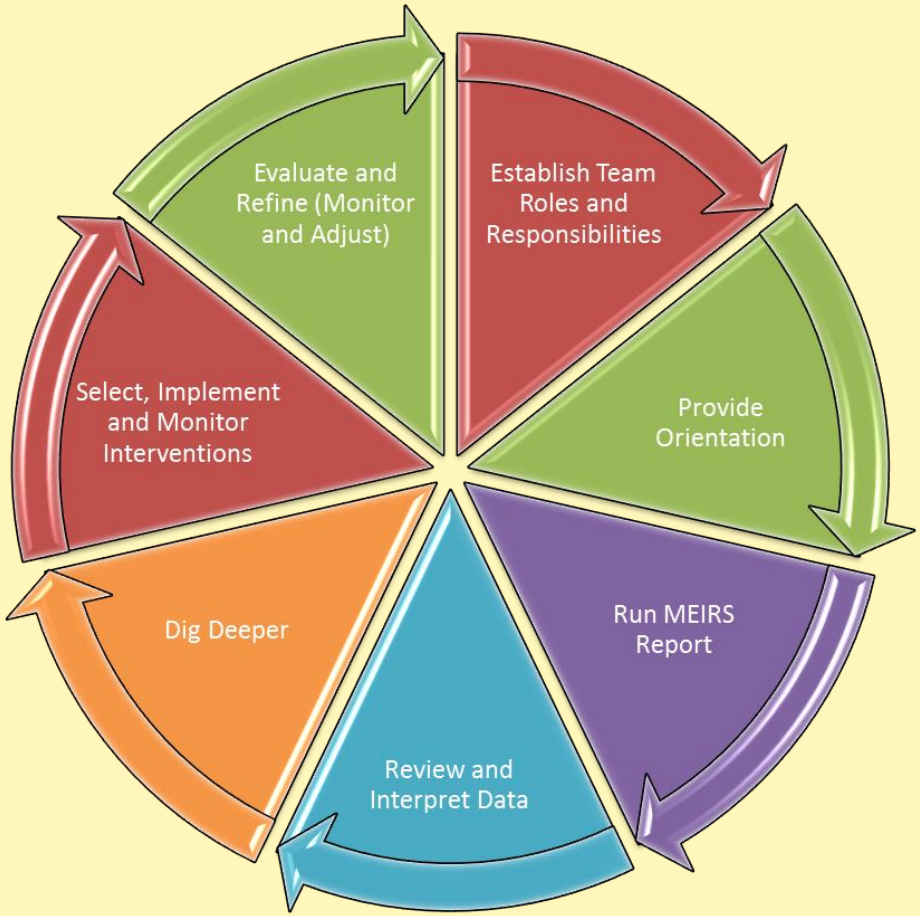
Practical Lessons from Implementation: Rosemount-Apple Valley-Eagan Public Schools

Timothy Conboy, Ed.D.

Assistant Principal

Rosemount High School, Minnesota

Seven-Step MEIRS Implementation Cycle



Q&A with Panelists

Moderated by
Mindee O'Cummings, Ph.D.

Principal Researcher, REL Midwest

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Wrap-Up & Closing Remarks

Mindee O'Cummings, Ph.D.

Principal Researcher, REL Midwest

Feedback Survey

Please complete the feedback survey and provide us with valuable information about how to improve our events.

Click here: Stakeholder Feedback Survey

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